

1. CURRICULUM VITAE

Name: Nils Erik Johannes Karlsson
Nationality: Swedish
Place and Date of birth: Stockholm, Sweden, November 17, 1978
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Degrees:

September 2009: PhD in atmospheric sciences, Stockholm University.

Thesis title: The influence of clouds on Earth's radiation budget in global climate models. Supervisors: Professor Gunilla Svensson and Professor emeritus Henning Rodhe.

June 2004: M.Sc in atmospheric sciences, Stockholm University.

Degree project title: Influence of the sea breeze circulation on the transportation of pollutants in southern California. Supervisor: Associate Professor Gunilla Svensson.

Present employment:

October 2009 - present: Postdoc position at Jet Propulsion Laboratory/California Institute of Technology, Pasadena, California

Non-academic work experience:

July-October 2004: Research assistant to Professor Michael Tjernström

Summer 2003: SMHI, Norrköping, summer personnel at the Media production unit

Summer 2002: SMHI, Norrköping, summer practice at the Marine production unit

Language skills:

Swedish (Native), English (Fluent), German (Basic)

Computer skills:

Windows, Unix, OS X, MS Office, Illustrator, Photoshop

Programming language experience: Fortran, MATLAB, Java, HTML, Latex, PHP

Model experience: CCSM, CAM, HIRLAM, COAMPS, MIUU

2. ACADEMIC RECORD

2.1 Academic publications

Peer-reviewed publications:

Karlsson, J., G. Svensson and H. Rodhe, 2008: Cloud Radiative Forcing of subtropical low level clouds in global models. *Climate Dynamics*. doi:10.1007/s00382-007-0322-1.

Karlsson, J. and G. Svensson, 2010: The simulation of Arctic clouds and their influence on the winter surface temperature in present-day climate in the CMIP3 multi-model dataset. *Climate Dynamics*. doi:10.1007/s00382-010-0758-6

Karlsson, J., G. Svensson, S. Cordoso, J. Teixeira, S. Paradise, 2010: Subtropical cloud regime transitions: boundary layer depth and cloud-top height evolution. *Journal of Applied Meteorology and Climatology*. *In press*

Submitted in review

Teixeira, J., S. Cardoso, M. Bonazzola, J. Cole, A. DelGenio, C. DeMott, C. Franklin, C. Hannay, C. Jakob, Y. Jiao, **J. Karlsson**, H. Kitagawa, M. Koehler, A. Kuwano-Yoshida, C. Ledrian, A. Lock, M.J. Miller, P. Marquet, J. Martins, C.R. Mechoso, E.V. Meijgaard, I. Meinke, P.M.A. Miranda, D. Mironov, R. Neggers, H.L. Pan, D.A. Randall, P.J. Rasch, B. Rockel, W.B. Rossow, B. Ritter, A.P. Siebesma, P. Soares, F.J. Turk, P. Vaillancourt, A. Von Engel, M. Zhao (2010) Tropical and sub-tropical cloud transitions in weather and climate prediction models: the GCSS/WGNE Pacific Cross-section Intercomparison (GPCI). Submitted to Journal of Climate

Manuscripts in preparation:

Svensson, G. and **Karlsson J.**: On the processes determining the Arctic wintertime climate in global climate models.

Karlsson J. and Teixeira J.: A simple stratocumulus-to-cumulus transition model derived from the climatological surface energy budget

Conference Presentations and Abstracts:

Karlsson J., Svensson G., Rodhe H.: Is there a too strong model cloud feedback in GCMs? EGU General Assembly, Vienna 15-20 April 2007 (poster presentation).

Karlsson J., Teixeira J., Svensson G., Cordoso S: The transition from a stratus topped marine boundary layer to a trade-wind cumulus topped marine boundary layer in global climate models. AMS Symposium on Boundary Layers and Turbulence, Stockholm 9-13 June 2008.

Karlsson J., Svensson G.: The simulation of Arctic clouds and their radiative properties for present-day climate in the CMIP3 multi-model dataset. International Conference on Clouds and Precipitation (ICCP-2008), Cancun 7-11 July 2008.

2.2 Academic visits

Dec 2005, 1 week. University of Oslo, Norway

March-April 2006, 3 weeks. The National Center of Atmospheric Research, Boulder, USA.

Feb - March 2008, 3 weeks. Jet Propulsion Laboratory, Pasadena, USA.

2.3 Awards and grants:

2006 Helge Ax:son Johnson stiftelse, 25 000 SEK

2008 The Bert Bolin Centre for Climate Research, 10 000 SEK

3. PEDAGOGICAL EXPERIENCE

3.1 Teaching activities:

2004 – 2009:

Teaching at a 18% level at the Department of Meteorology, Stockholm University. Mainly tutoring of problem solving classes and supervision of computer exercises. Large and meso scale dynamic meteorology, climatology and general circulation are examples of courses I have been involved in.

3.2 Pedagogical education:

February 2007:

“Universitetspedagogik 1” (University teaching 1), 3 credits (2 weeks).

4. REFERENCE

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